Racial/ethnic inequality among children: Implications for health disparities across the lifecourse

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Outline

• Influences on child health and development
  – Neighborhood effects

• Racial/ethnic inequality in neighborhood/school environments

• How do we integrate them?
A definition of children’s health

Children’s health is the extent to which individual children or groups of children are able or enabled to (a) develop and realize their potential, (b) satisfy their needs, and (c) develop the capacities that allow them to interact successfully with their biological, physical, and social environments.

(IOM, 2004, Children’s Health: The Nation’s Wealth)

- White
- Black
- Hispanic/Latino
- Asian/PI
- Native American
- Other
Low birthweight rates by race/ethnicity, nativity, and maternal education, US 2002


Influences on Child Health and Development

Neighborhood

Family

School

Child

Adult

Health, education, productivity, earnings
Most of the prevalent conceptual frameworks [of child development] do not emphasize the social stratification system, or the social positions that comprise the scaffolding or structure of the system (i.e., social class, ethnicity, and race) and the processes and consequences that these relative positions engender for a child's development. This shortcoming is found even in most of the contextually based theoretical frameworks identified in the developmental literature as organizational, transactional, and ecological.

(Garcia-Coll et al 1996)
Neighborhood, school and family environments matter for child health and development

- Science of brain development in early childhood has focused on family environment (e.g. parenting).

- Relative little knowledge about influence of larger environments such as neighborhoods, and interaction effects (e.g. between neighborhoods and parenting).
Neighborhood effects on child health and development

• Increasing evidence but largely from cross-sectional studies (selection problems).

• Sampling frames (e.g. central city samples) limited for understanding distributional issues
  – May mis-estimate neighborhood effects and disparities
Children in unsafe neighborhoods more likely to be in fair/poor health and have emotional problems
NSCH 2003 (adjusted odds ratios)
Larson et al., 2008, Pediatrics

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<th>Safe neighborhood</th>
<th>Unsafe neighborhood</th>
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<td>Fair/poor health</td>
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<td>Emotional problems</td>
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Percent of children who are always/usually safe in their neighborhood by race/ethnicity: NSCH 2005

- White: 91.7%
- Black: 68.9%
- Hispanic: 69.8%
MTO – strongest evidence on neighborhood effects on child health

• Evidence from Moving to Opportunity, a housing desegregation program, suggests that moving from low- to high-poverty neighborhoods can improve mental health.
  – Only experimental evidence of neighborhood effects on health;
  – Remarkable effects given that health was not addressed explicitly.
Housing mobility benefits on girls: NCSR-AS lifetime generalized anxiety disorder scale (Moving To Opportunity cross-site evaluation, ITT 4-7 year effects)

- High-poverty neighborhood (control): 9.1
- Low-poverty neighborhood (treatment): 4.9
Housing mobility benefits: Percent feeling safe at night (Moving To Opportunity cross-site evaluation, ITT 4-7 year effects)

- High-poverty neighborhood (control): 55.0%
- Low-poverty neighborhood (treatment): 69.0%
Distributional aspects and neighborhood environment

• Large racial/ethnic disparities in cross-sectional distributions of neighborhood/school environment.

• Large racial/ethnic disparities in longitudinal trajectories of neighborhood/school environment.
  (Quillian 2003, Sampson and Sharkey, 2008, Phuong Do 2009)

• Disparities in neighborhood environment linked to child outcomes.
There are large racial/ethnic inequalities children’s access to “opportunity neighborhoods/schools”
Black and Latino children experience double and triple jeopardy

- Black and Hispanic children live in families that disproportionately experienced disadvantage.

- Disparities among individuals and families are exacerbated by vast inequalities in neighborhood and school environments.

- Inequalities go far beyond what can be explained by income differences:
  - Poor black and Hispanic children encounter environments considerably worse than poor white and Asian children.
Pyramid Graph:

Hypothetical Equal Neighborhood Environment for 2 Groups: A Mirror Image

Neighborhood Poverty Rate

Over 40%
30.1-40%
20.1-30%
10.1-20%
0-10%

Black
White

Share of Children in Neighborhoods with Specified Poverty Rates
Metro Chicago
Poverty Composition of Neighborhoods of Black v. White Children

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<th>Neighborhood Poverty Rate</th>
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Share of Children in Neighborhoods with Specified Poverty Rates
Metro Chicago
Poverty Composition of Neighborhoods of All Black v. Poor White Children

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<th>Neighborhood Poverty Rate</th>
<th>All Black</th>
<th>Poor White</th>
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Share of Children in Neighborhoods with Specified Poverty Rates
Not only are average values of indicators of neighborhood environment worse for black and Hispanic children, but the entire distribution is shifted in a worse direction for blacks and Hispanics.
Quantifying Separate and Unequal: Racial/Ethnic Distributions of Neighborhood Poverty…


![Graph showing distribution of neighborhood poverty among Whites and Minorities with focus on IQR overlap.](image)
White and Black Children Overlap for Neighborhood Poverty: 2000

Metro Area

Tract % Poverty

Non-Hisp. White
Non-Hisp. Black
White and Hispanic Children Overlap for Neighborhood Poverty: 2000

DiversityData.org

Metro Area

Non-Hisp. White  Hispanic

Tract % Poverty
Share of Children Who Experience Double Jeopardy: Live in BOTH Poor Families and Poor Neighborhoods (Percent)

Source: Acevedo-Garcia, Osypuk, McArdle & Williams, 2008

Note: Poor neighborhoods are those with poverty rates over 20%. Source: 2000 Census
Black children much more likely than white children to experience “double jeopardy”
Source: Acevedo-Garcia, Osypuk, McArdle & Williams, 2008

Proportion of white and black children experiencing "double jeopardy" by segregation level, Metropolitan areas, 2000

- **High segregation**: 26.4% Black, 1.0% White
- **Medium segregation**: 14.6% Black, 0.8% White
- **Low segregation**: 10.0% Black, 1.4% White
Latino children much more likely than white children to experience “double jeopardy”
Source: Acevedo-Garcia, Osypuk, McArdle & Williams, 2008
Black/Hispanic Primary School Students Attend Schools with Dramatically Higher Shares of Low-Income Students Than Do Whites

(Percent of Students Attending Schools by Free/Reduced Lunch Eligibility: 2006-07)

Metro Chicago Black/Hispanic Primary School Students Attend Schools with Dramatically Higher Shares of Low-Income Students Than Do Whites

(Percent of Students Attending Schools by Free/Reduced Lunch Eligibility: 2006-07)

Segregation is associated with detrimental health outcomes.
Hypersegregation and racial disparities in preterm birth


**Figure 2. Racial Disparity in Predicted Probability Preterm Birth by Metropolitan Area Hypersegregation and Maternal Age from Final Model (in percentage points)**

- **Random slope model**

Racial disparity in predicted probability of preterm birth (black minus white)

- Racial disparity in nonsegregated MAs
- Racial disparity hypersegregated MAs

Age range: 15 to 45 years
What can we do?

• Do we pause?

• Link child development and child equity work.
  – Effects at individual level plus population wide inequality patterns

• Isolate effect of “race/ethnicity”

• Double/triple jeopardy: “black and Latino children don’t get a break”

• Focus on “opportunity”
  – Child specific definition of opportunity
What can we do?

• Focus on solutions
  – Evidence and principles

• Mobility policies, e.g. link housing subsidies and low-income housing development to opportunity neighborhoods/schools, school integration/school choice programs.

• Place-based policies, e.g. neighborhood food environment, school-based interventions, safe after-school spaces.
Extra slides
Terminology

• **Metropolitan (Metro) Areas:**
  – Comprised of core cities and their surrounding suburban areas
  – Definitions based on strong economic and social ties (commuting patterns)
  – Larger than cities or counties.
  – Often referred to as “regions”

• **Racial/ethnic groups:**
  – Our focus: 4 largest racial/ethnic groups in U.S.
  – Non-Hispanic (NH) white; NH black; Hispanic or Latino; NH Asian/Pacific Islander

• **Children:**
  – Under age 18
What we know

• Neighborhood, school and family environments matter for child health and development.

• Children are highly segregated across neighborhoods and schools.
  – Segregation is associated with detrimental health outcomes.

• There are large racial/ethnic inequalities in children’s access to “opportunity neighborhoods” and “opportunity schools”—a result of segregation.
  – Not accounted for by income differences

• Moving from high-poverty to low-poverty neighborhoods may improve child health.
Black/Hispanic Students Attend Schools with Dramatically Different Racial Compositions Than Those of White Students

(Percent of Students Attending Schools by Black/Hispanic Share of Enrollment: 2006-07)

Racial residential segregation is at the root of black-white health disparities


- Segregation constrains socioeconomic advancement of minorities,

- Increases exposure of minorities to unfavorable neighborhood environments,

- Leads to segregation in health care settings, which is associated with disparities in quality of treatment.
Pathways between neighborhood environment and health
(Turner & Acevedo-Garcia, 2005)

• Lack of safety/violence
• Stress
• Health behaviors:
  • Targeting (fast food, tobacco)
  • Neighborhood physical and social environment (playground quality, walkability, safety)
  • Peer networks
• Environmental pollutants
• Long term effects of limited access to high quality education